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VIA ELECTRONIC FILING

October 16, 2019

Marlene Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 201154

Re: **Summary of Oral *Ex Parte* Communication**

ET Docket No. 18-295: *Unlicensed Use of the 6 GHz Band*; and

GN Docket No. 17-183: *Expanding Flexible Use of Mid-Band Spectrum Between 3.7 GHz and 24 GHz*

Dear Ms. Dortch:

On October 11, 2019 Russell Fox of Mintz and I met with Aaron Goldberger, Wireless and International Advisor to Chairman Pai and on October 16 we met with the following members of the staff of the Office of Engineering and Technology, in each case regarding the above-referenced proceedings:

Julius Knapp	Nicholas Oros
Ira Keltz	Bahman Badipour
Aspasia Paroutsas	Barbara Pavon*
Michael Ha	Aole Wilkens El*
Karen Rackley	

*By teleconference

We urged the Commission to move quickly to establish rules for unlicensed access in the 5925-7125 megahertz (the "6 GHz") band. We emphasized that an immediate need for additional spectrum capacity is driven by the ever-greater role Wi-Fi plays in delivering broadband connectivity and that the 6 GHz band remains ideally suited to satisfy this need. However, an overly restrictive regulatory approach of mandating automatic frequency coordination ("AFC") on *all* 6 GHz uses cases would effectively preclude any unlicensed operations until commercially-viable AFC systems are developed and certified, which may take years. Doing so would halt the dynamic growth of the Wi-Fi ecosystem and undermine the Commission's stated

objectives to advance broadband connectivity and secure U.S. leadership in the next generation of wireless services.[1/]

Access to the 6 GHz band is urgently needed both for relieving Wi-Fi spectrum congestion and for the success of next-generation Wi-Fi technology (Wi-Fi 6), which is intended to complement 5G services by supporting increased capacity, efficiency, and performance for advanced connectivity.[2/] Wi-Fi Alliance's recently launched Wi-Fi 6 certification program paves the way for delivery of broadband connectivity to millions of Americans.[3/] Wi-Fi 6 is a remarkable technology developed with significant effort and investment of the world's leading technology companies, but its full potential cannot be realized without sufficient spectrum access. This much needed spectrum access will be delayed or even precluded altogether if the Commission imposes AFC constraints on low-power, indoor ("LPI") and very low power ("VLP") use.[4/] While standard-power devices operating with AFC will eventually play an important role, LPI and VLP devices are the majority of Wi-Fi use cases today. An indiscriminately-applied AFC requirement would block *meaningful relief* for the Wi-Fi spectrum shortage for three principal reasons.

First, there will be a substantial delay in the time required to complete the required technical design, testing, deployment, and regulatory certification of commercially viable AFC system(s), and it is only once these systems are approved by the Commission that companies can begin manufacturing and marketing compliant devices. This delay is likely to mirror those that have occurred in instances where the Commission required similar systems as a condition of spectrum access. For example, the Commission has only recently begun authorizing large-scale commercial deployments of Spectrum Access Systems ("SAS") in its 3.5 GHz Citizens Broadband Radio Service,[5/] despite having adopted the rules governing SAS requirements nearly *five years* ago.[6/] Similarly, the Commission initially authorized unlicensed operations in "white spaces" in the TV band in 2008. While the Commission's rules envisioned that these devices would begin operating after the transition from analog to digital TV broadcasts was completed in 2009, it was not until 2011 that the Commission began granting authorizations to white space database administrators, and it was not until the following year that these databases were fully

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1/ *See In the Matter of Unlicensed Use of the 6 GHz Band*, ET Docket No. 18-295, FCC 18-147 (rel. Oct. 24, 2018) ("*NPRM*") at ¶1.

2/ *See* Wi-Fi Alliance, *Discover Wi-Fi: Wi-Fi Certified 6*, available at https://www.wi-fi.org/discover-wi-fi/wi-fi-certified-6.

3/ Wi-Fi Alliance, *Wi-Fi CERTIFIED 6 delivers new Wi-Fi era*, Press Release, Sept. 16, 2019, available at https://www.wi-fi.org/news-events/newsroom/wi-fi-certified-6-delivers-new-wi-fi-era.

4/ *Reply Comments of Wi-Fi Alliance*, ET Docket No. 18-295 at 16-18 (filed Mar. 18, 2019) ("*WFA Reply Comments*").

5/ *Wireless Telecommunications Bureau and Office of Engineering and Technology Approve Five Spectrum Access System Administrators to Begin Initial Commercial Deployments in the 3.5 GHz Band*, Public Notice, DA 19-915 (rel. Sept. 16, 2019).

6/ *See Amendment of the Commission's Rules with Regard to Commercial Operations in the 3550-3650 MHz Band*, Report and Order and Second Further Notice of Proposed Rulemaking, 30 FCC Rcd 3959 (2015).

operational.[7/] While industry and the Commission have learned from these deployments, it remains likely that years will be required from a Report and Order to the first AFC-equipped devices reaching the market. But the need for spectrum to support Wi-Fi growth and innovation is urgent and immediate.

Second, AFC implementation entails additional cost and complexity. Imposing an AFC requirement on VLP and LPI devices, which comprise vital Wi-Fi use cases, would compromise their commercial viability in the extremely price-sensitive consumer-grade equipment marketplace.[8/] As the Commission recognized in its 2017 *Notice of Inquiry*, rules that require expensive and complex protection mechanisms can undermine the utility of the spectrum for many uses.[9/] Such restrictions should be carefully considered and applied only when necessary.

Finally, Wi-Fi's success, in large part, depends on global market access, which, in turn, requires international regulatory alignment and equipment commonality. In many countries, AFC implementation would not be feasible because information on 6 GHz incumbent services is not readily available. In Europe, for example, following extensive spectrum-sharing study effort, regulators are converging on the 6 GHz LPI and VLP regulatory solution.[10/] Requiring U.S. manufacturers to conform to a patchwork of national regulations would be detrimental to U.S. consumers, economic interests, and technological leadership goals.

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Pursuant to Section 1.106 of the Commission's rules, a copy of this letter has been submitted in the record of the above reference proceedings and a copy of this letter has been provided to the meeting participants. If there are any questions regarding the foregoing, please contact the undersigned.

Respectfully submitted,

/s/ Alex Roytblat

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7/ *See White Space Database Administrators Authorized in the East Coast Region*, Public Notice, 27 FCC Rcd 15099 (2012).

8/ *WFA Reply Comments* at 16-18.

9/ *Expanding Flexible Use in Mid-Band Spectrum Between 3.7 and 24 GHz*, Notice of Inquiry, 32 FCC Rcd 6373 ¶ 30 (2017) (asking whether DFS requirements were preventing "meaningful access to spectrum").

10/ *See* Electronic Communications Committee, *Draft ECC Decision on 6 GHz WAS-RLAN*, https://cept.org/Documents/fm-57/53822/temp04_draft-ecc-decision-on-6ghz-was-rlan.

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